

# W Y O M I N G CAREERS®



The production, processing, marketing, distribution, financing and development of agricultural commodities and resources. Mining and mineral extraction are included in the Agriculture, Food & Natural Resources cluster.

## Career Cluster Guide

2009-2010



# CAREER CLUSTER MODEL

Industry and workplace knowledge and skills are taught and reinforced in all pathways and at all levels.



Highly specific career specialty skills are taught at the postsecondary level by colleges, trade schools, apprenticeships or other training options.

High schools offer some or all pathways to students and teach pathway-specific knowledge and skills.

# PATHWAY

# SPECIFIC OCCUPATIONS

<b>Food Products and Processing Systems</b>	<ul style="list-style-type: none"> <li>• Food Scientists</li> <li>• Meat Processors</li> <li>• Toxicologists</li> <li>• Biochemists</li> <li>• Nutritionists</li> <li>• Dieticians</li> <li>• Food Brokers</li> <li>• Food Inspectors</li> </ul>	<ul style="list-style-type: none"> <li>• Meat Cutters</li> <li>• Meat Graders</li> <li>• Meat Science Researchers</li> <li>• Food Meal Supervisors</li> <li>• Cheese Makers</li> <li>• Microbiologists</li> </ul>	<ul style="list-style-type: none"> <li>• Produce Buyers</li> <li>• Bacteriologists</li> <li>• Food and Drug Inspectors</li> <li>• Bioengineers</li> <li>• Biochemists</li> <li>• Food and Fiber Engineers</li> </ul>	<ul style="list-style-type: none"> <li>• Food Processors</li> <li>• Storage Supervisors</li> <li>• Quality Control Specialists</li> </ul>
<b>Plant Systems</b>	<ul style="list-style-type: none"> <li>• Bioinformatics Specialists</li> <li>• Plant Breeders and Geneticists</li> <li>• Biotechnology Lab Technicians</li> </ul>	<ul style="list-style-type: none"> <li>• Soil and Water Specialists</li> <li>• Crop Farm Managers</li> <li>• Plant Pathologists</li> <li>• Botanists</li> <li>• Tree Surgeons</li> </ul>	<ul style="list-style-type: none"> <li>• Commodity Marketing Specialists</li> <li>• Grain Operations Superintendents</li> <li>• Custom Hay/Silage Operators</li> </ul>	<ul style="list-style-type: none"> <li>• Forest Geneticists</li> <li>• Golf Course Superintendents</li> <li>• Greenhouse Managers</li> <li>• Farmers</li> <li>• Ranchers</li> </ul>
<b>Animal Systems</b>	<ul style="list-style-type: none"> <li>• Livestock Producers</li> <li>• AI Technicians</li> <li>• Aquaculturalists</li> <li>• Animal Caretakers</li> <li>• Poultry Managers</li> <li>• Equine Managers/Veterinarians</li> </ul>	<ul style="list-style-type: none"> <li>• Animal Health Products Distributors</li> <li>• Veterinary Assistants</li> <li>• Feedlot Specialists</li> <li>• Animal Scientists</li> <li>• Livestock Buyers</li> <li>• Feed Sales Representatives</li> </ul>	<ul style="list-style-type: none"> <li>• Livestock Geneticists</li> <li>• Animal Nutritionists</li> <li>• Dairy Producers</li> <li>• Livestock Inspectors</li> <li>• Feed Sales Specialists</li> <li>• Animal Health Salespersons</li> </ul>	<ul style="list-style-type: none"> <li>• Reproductive Physiologists</li> <li>• Embryo Transfer Technicians</li> <li>• Pet Shop Operators</li> <li>• USDA Inspectors</li> </ul>
<b>Power, Structural and Technical Systems</b>	<ul style="list-style-type: none"> <li>• Machine Operators</li> <li>• Electronics Systems Technicians</li> <li>• Agricultural Engineers</li> <li>• Agricultural Extension Engineering Specialists</li> <li>• Heavy Equipment Maintenance Technicians</li> </ul>	<ul style="list-style-type: none"> <li>• Recycling Technicians</li> <li>• Waste Water Treatment Plant Operators</li> <li>• Equipment/Parts Managers</li> <li>• Welders</li> <li>• Machinists</li> </ul>	<ul style="list-style-type: none"> <li>• Communication Technicians</li> <li>• Agricultural Applications Software Developers/Programmers</li> <li>• Database Administrators</li> </ul>	<ul style="list-style-type: none"> <li>• Computer Service Technical Support Technicians</li> <li>• Information Lab Specialists</li> <li>• GPS Technicians</li> <li>• Remote Sensing Specialists</li> </ul>
<b>Natural Resource Systems</b>	<ul style="list-style-type: none"> <li>• Cartographers</li> <li>• Wildlife Biologists</li> <li>• Wildlife Managers</li> <li>• Range Technicians</li> <li>• Ecologists</li> <li>• Park Managers</li> </ul>	<ul style="list-style-type: none"> <li>• Environmental Interpreters</li> <li>• Fish and Game Officers</li> <li>• Loggers</li> <li>• Forest Technicians</li> <li>• Log Graders</li> </ul>	<ul style="list-style-type: none"> <li>• Pulp and Paper Managers</li> <li>• Soil Geology Technicians</li> <li>• Geologists</li> <li>• Mining Engineers</li> <li>• Fisheries Technicians</li> </ul>	<ul style="list-style-type: none"> <li>• Water Monitoring Technicians</li> <li>• Hydrologists</li> <li>• Fish Hatchery Managers</li> </ul>
<b>Environmental Service Systems</b>	<ul style="list-style-type: none"> <li>• Pollution Prevention and Control Managers</li> <li>• Pollution Prevention and Control Technicians</li> <li>• Environmental Sampling and Analysis Scientists/Technicians</li> </ul>	<ul style="list-style-type: none"> <li>• Health and Safety Sanitarians</li> <li>• Environmental Compliance Assurance Managers</li> <li>• Hazardous Materials Handlers</li> </ul>	<ul style="list-style-type: none"> <li>• Hazardous Materials Technicians/Managers</li> <li>• Water Environment Managers</li> <li>• Water Quality Managers</li> <li>• Waste Water Managers</li> </ul>	<ul style="list-style-type: none"> <li>• Solid Waste Disposers/Recyclers</li> <li>• Solid Waste Technicians</li> <li>• Solid Waste Managers</li> <li>• Solid Waste Specialists</li> </ul>
<b>Agribusiness Systems</b>	<ul style="list-style-type: none"> <li>• Agricultural Salespersons</li> <li>• Sales Managers</li> <li>• Bankers/Loan Officers</li> <li>• Field Representatives for Bank, Insurance Company or Government Programs</li> <li>• Farm Investment Managers</li> </ul>	<ul style="list-style-type: none"> <li>• Agricultural Commodity Brokers</li> <li>• Agricultural Economists</li> <li>• Farmers/Ranchers/Feedlot Operators</li> <li>• Farm Managers</li> <li>• Livestock Ranchers/Breeders</li> <li>• Dairy Herd Supervisors (DHIA)</li> </ul>	<ul style="list-style-type: none"> <li>• Agricultural Products Buyers</li> <li>• Livestock Sellers</li> <li>• Feed and Supply Store Managers</li> <li>• Produce Commission Agents</li> <li>• Agricultural Lenders</li> <li>• Agricultural Chemical Dealers</li> </ul>	<ul style="list-style-type: none"> <li>• Field Service Representatives</li> <li>• Chemical Sales Representatives</li> <li>• Agricultural Communications Specialists</li> <li>• Agricultural Educators</li> <li>• Education and Extension Specialists</li> <li>• Agricultural Journalists</li> </ul>

For descriptions of agriculture occupations, go to <http://www.agriculture.purdue.edu/usda/careers/index.html>.



# Wyoming's Highest-Paying, Fastest-Growing Jobs

Title	Basic Description O*NET/SOC Description (may be truncated)	Anticipated Total 2014 Employment	
Source: See footnote #1	Source: See footnote #1	Source: See footnote #1	
Derrick operators, oil and gas	Rig derrick equipment and operate pumps to circulate mud through drill hole.	1,385	
Earth drillers, except oil and gas	Operate a variety of drills, such as rotary, churn, and pneumatic, to tap sub-surface water and salt deposits, to remove core samples during mineral exploration or soil testing, and to facilitate the use of explosives in mining or construction.	784	
Excavating and loading machine and dragline operators	Operate or tend machinery equipped with scoops, shovels, or buckets, to excavate and load loose materials.	3,098	
Explosives workers, ordnance handling experts, and blasters	Place and detonate explosives to demolish structures or to loosen, remove, or displace earth, rock, or other materials.	1,109	
First-line supervisors/managers of landscaping, lawn service	Plan, organize, direct, or coordinate activities of workers engaged in landscaping or groundskeeping activities, such as planting and maintaining ornamental trees, shrubs, flowers, and lawns, and applying fertilizers, pesticides, and other chemicals.	658	
Gas compressor and gas pumping station operators	Operate steam, gas, electric motor, or internal combustion engine-driven compressors. Transmit, compress, or recover gases, such as butane, nitrogen, hydrogen, and natural gas.	403	
Gas plant operators	Distribute or process gas for utility companies and others by controlling compressors to maintain specified pressures on main pipelines.	518	



## Wyoming Mining and Mineral Extraction

The mining and mineral extraction industry is big business in Wyoming. It accounts for over 22% of the state's product and continues to grow at a very rapid rate with an average weekly wage of over \$1,136.00. The Rocky Mountain Oil and Gas Partnership estimates the current worker shortage to be nearly 5,000 jobs.

# Agriculture, Food & Natural Resources

	Wyoming Number of New Jobs, Projected 2004-2014	Wyoming Estimated Hourly Average Wage	Wyoming Estimated Yearly Wage	Most Common Education/ Training	Suggested Programs of Study	Is at least one of these programs available in Wyoming?
	Source: See footnote #1	Source: See footnote #1	Source: See footnote #1	Source: See footnote #2	Source: See footnote #2	
	692	\$21.00	\$43,698	Moderate-term on-the-job training	<ul style="list-style-type: none"> <li>• Apprenticeship Programs</li> <li>• Heavy/Industrial Equipment Maintenance Technologies</li> <li>• Industrial Mechanics and Maintenance Technology</li> </ul>	Yes
	332	\$17.31	\$36,008	Moderate-term on-the-job training	<ul style="list-style-type: none"> <li>• Apprenticeship Programs</li> <li>• Heavy/Industrial Equipment Maintenance Technologies</li> <li>• Industrial Mechanics and Maintenance Technology</li> </ul>	Yes
	554	\$17.62	\$36,646	Moderate-term on-the-job training	<ul style="list-style-type: none"> <li>• Construction/Heavy Equipment/ Earthmoving Equipment Operation</li> </ul>	Yes
	500	\$22.38	\$46,549	Moderate-term on-the-job training	<ul style="list-style-type: none"> <li>• Apprenticeship Programs</li> <li>• Heavy/Industrial Equipment Maintenance Technologies</li> <li>• Industrial Mechanics and Maintenance Technology</li> </ul>	Yes
	114	\$12.67	\$26,335	Work experience in a related occupation	<ul style="list-style-type: none"> <li>• Landscaping and Groundskeeping</li> <li>• Ornamental Horticulture</li> <li>• Turf and Turfgrass Management</li> </ul>	Yes
	130	\$22.64	\$47,091	Moderate-term on-the-job training	<ul style="list-style-type: none"> <li>• Apprenticeship Programs</li> <li>• Heavy/Industrial Equipment Maintenance Technologies</li> <li>• Industrial Mechanics and Maintenance Technology</li> </ul>	Yes
	156	\$25.17	\$42,922	Long-term on-the-job training	<ul style="list-style-type: none"> <li>• Apprenticeship Programs</li> <li>• Heavy/Industrial Equipment Maintenance Technologies</li> <li>• Industrial Mechanics and Maintenance Technology</li> </ul>	Yes

For additional information and resources, go to:

[http://www.wyomingworkforce.org/resources/links\\_career.aspx](http://www.wyomingworkforce.org/resources/links_career.aspx)

1. Source: [doe.state.wy.us/lmi](http://doe.state.wy.us/lmi)
2. Source: [www.careerinfonet.org](http://www.careerinfonet.org)



## Wyoming Agriculture

The 2005 Wyoming Agriculture Statistics publication states, "The value of the agriculture sector output in Wyoming annually approaches or exceeds one billion dollars.... According to the Division of Economic Analysis, the agricultural sector – Farm and Ag Services – provides over 17,000 jobs."

While the proprietary nature of employment in this industry does not provide much Wyoming wage information, the industry appears to be growing rapidly in terms of product. This may be occurring through advances in equipment rather than through labor. However, opportunities exist especially for entrepreneurs.

# Wyoming's Highest-Paying, Fastest-Growing Jobs

Title	Basic Description O*NET/SOC Description (may be truncated)	Anticipated Total 2014 Employment	
Source: See footnote #1	Source: See footnote #1	Source: See footnote #1	
Helpers of extraction workers	Help extraction craft workers, such as earth drillers, blasters and explosives workers, derrick operators, and mining machine operators, by performing duties of lesser skill.	841	
Landscaping and groundskeeping workers	Landscape or maintain grounds of property using hand or power tools or equipment.	2,140	
Petroleum pump system operators, refinery operators, and gauges	Control the operation of petroleum refining or processing units. May specialize in controlling manifold and pumping systems, gauging or testing oil in storage tanks, or regulating the flow of oil into pipelines.	577	
Power plant operators, including auxiliary equipment operators	Control, operate, or maintain machinery to generate electric power.	334	
Pump operators, except wellhead pumpers	Tend, control, or operate power-driven, stationary, or portable pumps and manifold systems to transfer gases, oil, other liquids, slurries, or powdered materials to and from various vessels and processes.	520	
Refuse and recyclable material collectors	Collect and dump refuse or recyclable materials from containers into truck. May drive truck.	299	
Rotary drill operators, oil and gas	Set up or operate a variety of drills to remove petroleum products from the earth and to find and remove core samples for testing during oil and gas exploration.	936	
Roustabouts, oil and gas	Assemble or repair oil field equipment using hand and power tools. Perform other tasks as needed.	1,707	
Service unit operators, oil, gas, and mining	Operate equipment to increase oil flow from producing wells or to remove stuck pipe, casing, tools, or other obstructions from drilling wells.	1,404	
Veterinarians	Diagnose and treat diseases and dysfunctions of animals.	196	
Veterinary assistants and laboratory animal caretakers	Feed, water, and examine pets and other nonfarm animals for signs of illness, disease, or injury in laboratories and animal hospitals and clinics.	221	
Veterinary technologists and technicians	Perform medical tests in a laboratory environment for use in the treatment and diagnosis of diseases in animals.	221	
Wellhead pumpers	Operate power pumps and auxiliary equipment to produce flow of oil or gas from wells in oil field.	1,060	

1. Source: [doe.state.wy.us/lmi](http://doe.state.wy.us/lmi)
2. Source: [www.careerinfonet.org](http://www.careerinfonet.org)
3. Certificate, Master of Science degree, doctorate

# Agriculture, Food & Natural Resources

	Wyoming Number of New Jobs, Projected 2004-2014	Wyoming Estimated Hourly Average Wage	Wyoming Estimated Yearly Wage	Most Common Education/ Training	Suggested Programs of Study	Is at least one of these programs available in Wyoming?
	Source: See footnote #1	Source: See footnote #2	Source: See footnote #2	Source: See footnote #2	Source: See footnote #2	
	360	\$17.86	\$37,130	Moderate-term on-the-job training	<ul style="list-style-type: none"> <li>Apprenticeship Programs</li> <li>Heavy/Industrial Equipment Maintenance Technologies</li> <li>Industrial Mechanics and Maintenance Technology</li> </ul>	Yes
	401	\$12.20	\$25,375	Short-term on-the-job training	<ul style="list-style-type: none"> <li>Landscaping and Groundskeeping</li> <li>Ornamental Horticulture</li> <li>Turf and Turfgrass Management</li> </ul>	Yes
	109	\$20.98	\$52,357	Long-term on-the-job training	<ul style="list-style-type: none"> <li>Apprenticeship Programs</li> <li>Heavy/Industrial Equipment Maintenance Technologies</li> <li>Industrial Mechanics and Maintenance Technology</li> </ul>	Yes
	53	\$28.76	\$30,347	Long-term on-the-job training	<ul style="list-style-type: none"> <li>Apprenticeship Programs</li> <li>Heavy/Industrial Equipment Maintenance Technologies</li> <li>Industrial Mechanics and Maintenance Technology</li> </ul>	Yes
	64	\$19.13	\$39,783	Moderate-term on-the-job training	<ul style="list-style-type: none"> <li>Apprenticeship Programs</li> <li>Heavy/Industrial Equipment Maintenance Technologies</li> <li>Industrial Mechanics and Maintenance Technology</li> </ul>	Yes
	49	\$14.82	\$30,842	Moderate-term on-the-job training	No information about "Instructional Programs" for this occupation is available.	Yes
	454	\$27.67		Moderate-term on-the-job training	<ul style="list-style-type: none"> <li>Apprenticeship Programs</li> <li>Heavy/Industrial Equipment Maintenance Technologies</li> <li>Industrial Mechanics and Maintenance Technology</li> </ul>	Yes
	815	\$16.97	\$35,288	Moderate-term on-the-job training	<ul style="list-style-type: none"> <li>Apprenticeship Programs</li> <li>Heavy/Industrial Equipment Maintenance Technologies</li> <li>Industrial Mechanics and Maintenance Technology</li> </ul>	Yes
	677	\$21.42	\$44,549	Moderate-term on-the-job training	<ul style="list-style-type: none"> <li>Apprenticeship Programs</li> <li>Heavy/Industrial Equipment Maintenance Technologies</li> <li>Industrial Mechanics and Maintenance Technology</li> </ul>	Yes
	42	\$28.23	\$58,712	First professional degree	<ul style="list-style-type: none"> <li>Comparative and Laboratory Animal Medicine<sup>3</sup></li> <li>Large Animal/Food Animal and Equine Surgery and Medicine<sup>3</sup></li> <li>Veterinary Practice</li> </ul>	Yes
	55	\$8.89	\$18,495	Short-term on-the-job training	<ul style="list-style-type: none"> <li>Veterinary/Animal Health Technology</li> </ul>	Yes
	69	\$15.02	\$31,240	Associate degree	<ul style="list-style-type: none"> <li>Veterinary/Animal Health Technology</li> </ul>	Yes
	277	\$19.44	\$40,439	Moderate-term on-the-job training	<ul style="list-style-type: none"> <li>Apprenticeship Programs</li> <li>Heavy/Industrial Equipment Maintenance Technologies</li> <li>Industrial Mechanics and Maintenance Technology</li> </ul>	Yes

For additional information and resources, go to:  
[http://www.wyomingworkforce.org/resources/links\\_career.aspx](http://www.wyomingworkforce.org/resources/links_career.aspx)



# WYOMING LICENSED OCCUPATIONS

	Occupation Title	Licensing Agency
	Appraisers, General	Wyoming Certified Real Estate Appraiser Board 2020 Carey Avenue, Suite 100 Cheyenne, Wyoming 82002
	Agricultural Engineers	State Board of Registration for Professional Engineers and Professional Land Surveyors 2424 Pioneer Avenue, Suite 400 Cheyenne, Wyoming 82002
	Architects, Landscape	State Board of Architects and Landscape Architects 2020 Carey Avenue, Suite 201 Cheyenne, Wyoming 82002
	Artificial Insemination Technicians	Board of Veterinary Medicine 2020 Carey Avenue, Suite 201 Cheyenne, Wyoming 82002
	Butchers and Meat Cutters	Department of Agriculture 2219 Carey Avenue Cheyenne, Wyoming 82002
	Geologists	Wyoming Board of Professional Geologists P.O. Box 3008 Laramie, Wyoming 82071-3008
	Horse Racing Personnel	Pari-Mutuel Commission 2515 Warren Avenue, Suite 301 Cheyenne, Wyoming 82002
	Mechanical Engineers	State Board of Registration for Professional Engineers and Professional Land Surveyors 2424 Pioneer Avenue, Suite 400 Cheyenne, Wyoming 82002
	Mine Examiners	Wyoming Mining Council P.O. Box 1094 Rock Springs, Wyoming 82902
	Mine Foremen	Wyoming Mining Council P.O. Box 1094 Rock Springs, Wyoming 82902
	Mine Shotfirers	State Mine Inspector P.O. Box 1094 Rock Springs, Wyoming 82902
	Mining and Geologic Engineers, Including Mining Safety	State Board of Registration for Professional Engineers and Professional Land Surveyors 2424 Pioneer Avenue, Suite 400 Cheyenne, Wyoming 82002



# WYOMING LICENSED OCCUPATIONS

Occupation Title	Licensing Agency	
Outfitters	Wyoming State Board of Outfitters and Professional Guides 1950 Bluegrass Circle, Suite 280 Cheyenne, Wyoming 82002	
Pesticide Handlers, Sprayers, and Applicators	Wyoming Department of Agriculture 2219 Carey Avenue Cheyenne, Wyoming 82002	
Petroleum Engineers	State Board of Registration for Professional Engineers and Professional Land Surveyors 2424 Pioneer Avenue, Suite 400 Cheyenne, Wyoming 82002	
Real Estate Brokers	Wyoming Real Estate Commission 2020 Carey Avenue, Suite 100 Cheyenne, Wyoming 82002-0180	
Real Estate Salespersons	Wyoming Real Estate Commission 2020 Carey Avenue, Suite 100 Cheyenne, Wyoming 82002-0180	
Slaughterers and Meat Packers	Department of Agriculture 2219 Carey Avenue Cheyenne, Wyoming 82002	
Surveyors, Professional	State Board of Registration for Professional Engineers and Professional Land Surveyors 2424 Pioneer Avenue, Suite 400 Cheyenne, Wyoming 82002	
Veterinarians	Board of Veterinary Medicine 2020 Carey Avenue, Suite 201 Cheyenne, Wyoming 82002	
Water and Waste Water Treatment Plant Operators	Wyoming Department of Environmental Quality, Water Quality Division Herschler Building Cheyenne, Wyoming 82002	

Please go to  
[http://wydoe.state.wy.us/lmi/DIR\\_LIC/TOC.HTM](http://wydoe.state.wy.us/lmi/DIR_LIC/TOC.HTM)  
 for complete licensing and training requirements.

“Our 16 broad career clusters will help students enhance the link between the knowledge they acquire in school and the skills they need to pursue their dreams. Without limiting students, career clusters help them focus on an area of interest or a possible career path.”

– Richard W. Riley, Former U.S. Secretary of Education

# PROGRAMS OF STUDY

## WYOMING COMMUNITY COLLEGES

### AGRICULTURE, FOOD & NATURAL RESOURCES

Casper College

Central Wyoming College

Eastern Wyoming College

Laramie County  
Community College

Northwest College

Northern Wyoming  
Community College District

Western Wyoming  
Community College

## MAJORS

AS - Associate of Sciences  
AA - Associate of Arts  
AAS - Associate of Applied Sciences  
C - Certificate

Agriculture – Beef Production

C

Agriculture – Production Technology

AAS

Agriculture – Range Management

AS

Agribusiness

AS

Agribusiness Technology

AAS

AAS

Agricultural Economics

AS

Agricultural Education

AS

Agriculture

AS

AS

Agriculture (Production)

AAS, C

Agriculture Business

AS, AAS

AS

AS

AA, AS

Agriculture Communications

AS

Agriculture Production Technology

AAS

Agriculture Science

AA, AS

Agriculture – Vocational Education

AS

Agroecology

AS

Animal Science

AS, AAS

AS

AS

AS

Anthropology

AA

AA

Biological Science

AS

Biology

AS

AS

AS

AS

AA, AS

AS

Chemical Technician

C

Chemistry

AS

AS

AS

AS

Commercial Driver's License (CDL)

C

Compression Technology

AAS, C

# PROGRAMS OF STUDY

## WYOMING COMMUNITY COLLEGES

### AGRICULTURE, FOOD & NATURAL RESOURCES

Casper College

Central Wyoming College

Eastern Wyoming College

Laramie County  
Community College

Northwest College

Northern Wyoming  
Community College District

Western Wyoming  
Community College

## MAJORS

AS - Associate of Sciences  
AA - Associate of Arts  
AAS - Associate of Applied Sciences  
C - Certificate

Culinary Arts

AAS, C

AAS, C

Diesel and Heavy Equipment Maintenance and Repair

AAS, C

Diesel Power Technology

AAS, C

Diesel Technology

AAS, C

C

Diesel Technology with CDL

C

Earth & Environmental Science

AS

EHS - Environmental Technician

AAS

EHS - Health & Safety Technician

AAS

Electrical Mine Maintenance

C

Engineering

AS

AA, AS

AS

Engineering Technology

AAS

Environmental Science (Biology – Option B)

AS

Environmental Science and Leadership

AS

AS

Equine Business Management

AS

AAS

Equine Care and Basic Riding

C

Equine Science

AS

Equine Studies – Riding and Training

AAS

Equine Training Management

AAS

Equine Training Technology

C

Extractive Resources Technology

AAS, C

Farm and Ranch Management

AAS

AAS

Farrier Business Management

AAS

Farrier Science

C



# PROGRAMS OF STUDY

## WYOMING COMMUNITY COLLEGES

### AGRICULTURE, FOOD & NATURAL RESOURCES

Casper College

Central Wyoming College

Eastern Wyoming College

Laramie County  
Community College

Northwest College

Northern Wyoming  
Community College District

Western Wyoming  
Community College

## MAJORS

Fire Science Technology

Food and Meat Science

General Agriculture

Geography

Geology

Horse Management

Horse Science

Horticulture

Hospitality Management

Hospitality – Food and Beverage Management

Hospitality – Human Resource Management

Hospitality – Marketing and Sales Management

Hotel and Restaurant Management

Hotel Management

Industrial Maintenance Mechanics – Hydraulics

Industrial Safety

Machine Tool Technology

Major Hotel Management

Major Restaurant Management

MIG Welding

Natural Resource Biology

Pre-Rangeland Ecology

Pre-Veterinary

AS - Associate of Sciences  
AA - Associate of Arts  
AAS - Associate of Applied Sciences  
C - Certificate

AAS, C

AAS, C

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# PROGRAMS OF STUDY

## WYOMING COMMUNITY COLLEGES

### AGRICULTURE, FOOD & NATURAL RESOURCES

Casper College

Central Wyoming College

Eastern Wyoming College

Laramie County  
Community College

Northwest College

Northern Wyoming  
Community College District

Western Wyoming  
Community College

## MAJORS

Professional Bookkeeper

Range Management

Rangeland Ecology and Watershed Management –  
General Agriculture Option

Restaurant Management

Rodeo Production Management

Surface Maintenance Mechanics

Teaching Riding

Underground Maintenance Mechanics

Veterinary Assistant

Veterinary Technology

Welding Technology – Fabrication Shop Option

Welding Technology – Industrial Plant Option

Wilderness Emergency Medical Technician

Wilderness First Responder

Wildlife Conservation and Management

Wildlife/Fisheries Biology and Management

Wind Power Technician/Wind Power Technology

AS - Associate of Sciences  
AA - Associate of Arts  
AAS - Associate of Applied Sciences  
C - Certificate

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# UNIVERSITY OF WYOMING

## COLLEGE OF AGRICULTURE

Bachelor's Master's Doctorate

MAJORS

Agriculture Business \_\_\_\_\_

Agriculture Communications \_\_\_\_\_

Agriculture Economics \_\_\_\_\_

Agriculture Economics/Water Resources \_\_\_\_\_

Agroecology \_\_\_\_\_

Agronomy \_\_\_\_\_

Animal and Veterinary Science \_\_\_\_\_

Entomology \_\_\_\_\_

Family and Consumer Science \_\_\_\_\_

Food Science and Human Nutrition \_\_\_\_\_

Molecular Biology \_\_\_\_\_

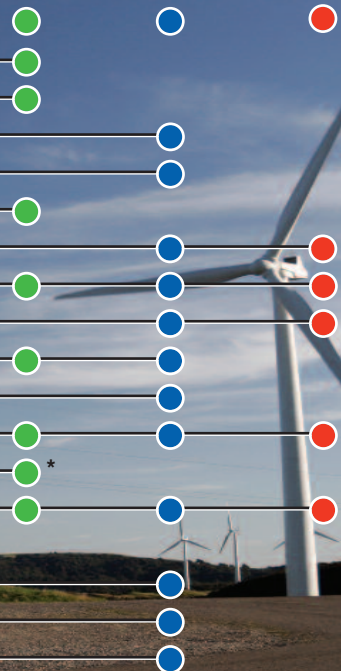
Organizational Leadership (Bachelor of Applied Sciences) \_\_\_\_\_\*

Rangeland Ecology and Watershed Management \_\_\_\_\_

Rangeland Ecology and Watershed Management/  
Water Resources \_\_\_\_\_

Soil Science \_\_\_\_\_

Soil Science/Water Resources \_\_\_\_\_



## COLLEGE OF ARTS AND SCIENCES

Bachelor's Master's Doctorate

MAJORS

American Studies \_\_\_\_\_

Anthropology \_\_\_\_\_

Biology \_\_\_\_\_

Botany \_\_\_\_\_

Botany/Water Resources \_\_\_\_\_

Chemistry \_\_\_\_\_

Communication \_\_\_\_\_

Environmental Geology/Geohydrology \_\_\_\_\_

Geography \_\_\_\_\_

Geography/Water Resources \_\_\_\_\_

Geology \_\_\_\_\_

Geology and Earth Science \_\_\_\_\_

Geology/Water Resources \_\_\_\_\_

Geophysics \_\_\_\_\_

International Studies \_\_\_\_\_

Natural Science \_\_\_\_\_

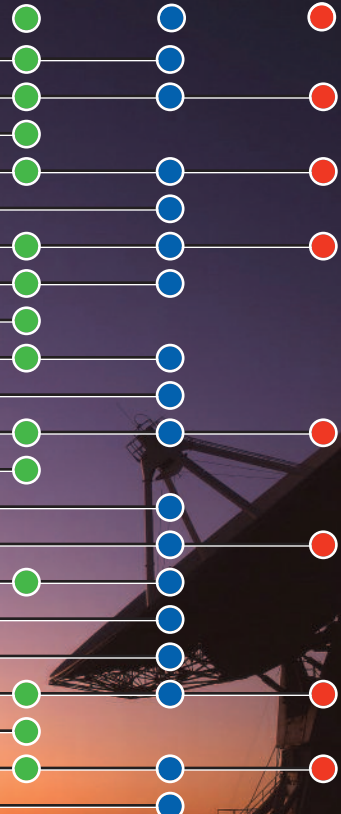
Planning \_\_\_\_\_

Statistics \_\_\_\_\_

Wildlife and Fisheries Biology and Management \_\_\_\_\_

Zoology and Physiology \_\_\_\_\_

Zoology and Physiology/Water Resources \_\_\_\_\_





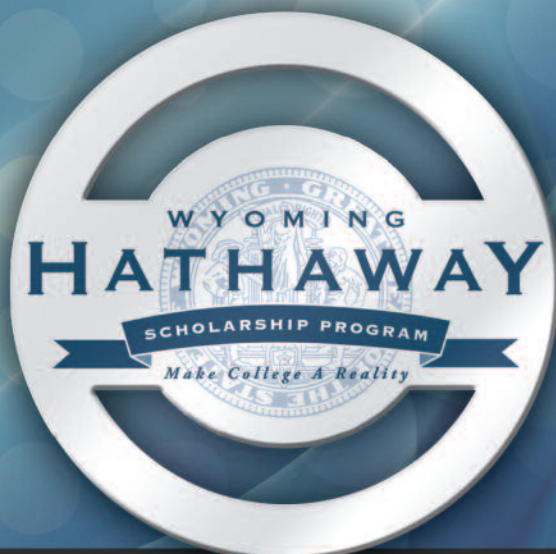
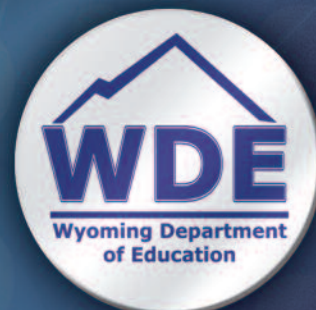
# UNIVERSITY OF WYOMING

COLLEGE OF BUSINESS		Bachelor's	Master's	Doctorate
MAJOR	Economics/Water Resources	●	●	●
COLLEGE OF EDUCATION				
MAJOR	Agriculture Education	●		
COLLEGE OF ENGINEERING				
MAJORS	Chemical Engineering	●	●	●
	Civil Engineering	●	●	●
	Civil Engineering/Water Resources		●	
	Energy Systems Engineering	●		
	Environmental Engineering		●	
	Mechanical Engineering	●	●	●
	Petroleum Engineering	●	●	●
COLLEGE OF LAW				
MAJOR	Law (Juris Doctorate)			●
INTERDISCIPLINARY MAJORS*				
MAJORS	Earth Systems Science Offered by Agriculture, Engineering, and Arts and Sciences	●		
	Energy Resource Science Offered by Agriculture, Engineering, and Arts and Sciences	●		
	Environmental and Natural Resources Offered by Agriculture and Arts and Sciences	●	●	
	Microbiology Offered by Agriculture, Arts and Sciences, and Health Sciences	●		
	Reproductive Biology Offered by Agriculture and Arts and Sciences		●	●

\*Combination programs that cross over more than one discipline. May be signed up for in any of the listed colleges.

**Degree:** An award conferred by a college or university signifying that the recipient has satisfactorily completed a defined academic or vocational-technical program of study: Associate of Arts, Associate of Science, Associate of Applied Science, Bachelor of Arts, or Bachelor of Science.

**Certificate:** An official document issued to a student by a college or university attesting to the training, aptitude and/or qualification gained from the satisfactory completion of a defined program of study. Credit hours vary from 0 to 60 credit hours and are awarded for attendance or specific skills gained. (Attendance requirements vary from one hour to two years of study, depending upon program requirements.)

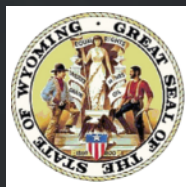


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Career Cluster Coordinator  
**Wyoming Department of Education**  
2300 Capitol Avenue  
Hathaway Building, 2nd Floor  
Cheyenne, WY 82002-0050



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